Before the
Federal Communications Commission

Washington, DC 20554

In the Matter of Revision of Parts 2 and 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz band	ET Docket No. 03-122 RM - 10371

Comments Of IceFyre Semiconductor, Inc.

IceFyre Semiconductor, Inc. (IceFyre) is a developer of chipsets for wireless Local Area Networks (WLAN). Our innovative 5- GHz 802.11a and dual-band 802.11a/b/g systems solutions use innovative digital, mixed signal and analog circuit design techniques which dramatically increase the efficiency and performance of OFDM-based systems. With expertise in the design and RF performance of 5-GHz physical layer solutions as well as the product plans of multiple OEMs developing 802.11a and 802.11a/b/g products in diverse markets including residential A/V, infrastructure products as well as consumer electronic devices such as WLAN-enabled PDAs, and VoIP phones, IceFyre is positioned to comment on the implications of this proposed rule change on semiconductor systems and end-user products.

IceFyre believes that the rules being proposed will encourage the growth of unlicensed wireless broadband devices and networks to the benefit of the American public. Furthermore, the proposed rules will ensure that incumbent radio services are protected against harmful interference. Market research conducted by IceFyre shows that spectrum currently available for U-NII devices is insufficient to support long-term growth for unlicensed wireless broadband devices and networks. This agrees with the analysis by the Commission staff, where market projections indicate that unlicensed wireless network products grew rapidly over the past two years and those future sales volumes are predicted to increase even more dramatically when market conditions improve.

IceFyre encourages the expedient allocation of additional 255 MHz of internationally harmonized spectrum for U-NII devices in the 5GHz region of the spectrum, as this will provide increased opportunity for the development and deployment of a wide variety of unlicensed wireless devices, and in particular for wideband digital technology.

It is accepted that incumbent radio services must be protected against harmful interference. To this end, IceFyre believes that Dynamic Frequency Selection (DFS), with radar detection, is an acceptable method to protect incumbent users. However, DFS definition should be corrected to note that it only requires uniform spreading of the loading over all available channels. Moreover, DFS should only be required for central controller devices, not for units under control of the central controller.

IceFyre recommends that Transmit Power Control (TPC) should not be needed for devices that already transmit with a power level that is 3 dB less than the maximum allowed power and that the FCC should allow manufacturers flexibility in complying with TPC requirements.

On the matter of rule migration, IceFyre recommends that any transition period for the 5250 to 5350 MHz band for compliance with new FCC rules should be tied to the availability of acceptable conformance testing procedures.

Respectfully submitted,

ICEFYRE SEMICONDUTOR, INC.

By: *submitted electronically*

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